



NHinteractive

SITE OPTIMIZATION RECOMMENDATIONS

FALL 2008

ICC 600



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OVERVIEW

overview INTRODUCTION

IMPROVING ONLINE VALUE systematic analysis for NHinteractive

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A little more than one year ago, the Center for Digital Convergence (CDC) deployed a Content Management System to support of journalism classes that wanted to publish student work on the web. The resulting sites—cmr.syr.edu/nhinteractive, and its integrated administrative Content Management System (CMS) pages—support classes offered by the Newspaper and Broadcast Journalism departments.

Recently, the CDC team added special analytical software meant to track usage and allow the Newhouse School to begin systematic analysis of the effectiveness of our web journalism efforts. Like many online efforts at the School, the site modifications were undertaken in an exploratory mode to support valuable educational inquiry; they were not strategically managed.

At the start of the Fall 2008 semester, a class of graduate students analyzed the usage data generated by the embedded analytical software. That analysis came after intensive study of the principles of computerized Content Management, the underlying algorithmic structure of internet search, the Google PageRank algorithm, and the principles of CMS data analysis. That analysis led to clear findings on various inefficiencies and limitations in site implementations and associated supports. This report, the result of that analysis, gives recommendations for improving the value of NH Interactive and the structure of the full CMS including personnel and work-flow.

For the purposes of this report, value is defined as specific measures undertaken to increase page-views amongst key audiences (detailed below), and to wring all errors out of the workflow. Our analysis began with the following known conditions and assumptions:

1. Audience. Clear audience targeting is crucial to any communication enterprise, and we believe the initial audience designation (Syracuse University students) was incomplete. A proper audience descriptor will acknowledge the reality that online publications have many means of entry and many targetable audiences. We believe that the most valuable audiences to the students and faculty, and to the reputation of the college are:

- Current students. Targeting current students increases the likelihood of inbound links from student sources such as Facebook pages, blogs, and links from parents.
- Alumni. Targeting alumni increases the likelihood of inbound links from industry sources as well as establishing NH Interactive as an online news brand.
- Competitor Institutions. Getting other educational institutions to link to NH Interactive stories would greatly increase their Search Engine relevance.
- Prospective students (high school, international and transfer). This is a traditional target audience for standard collegiate recruiting.
- Search engine users. Optimizing the site would have great benefit both on and offline. Higher SERP rank would increase visits to the site and increase awareness of the School.
- Industry executives/employers. Students would improve the quality of their work if they knew potential employers were treating the site as a de facto portfolio, much the same as employers lose at the web presence of other potential employers.

IMPROVING ONLINE VALUE

systematic analysis for NHinteractive

2. Workflow. NH Interactive is produced in the Collaborative Media Room (CMR) and any professors using the CMR must work with, and integrate their classes with the existing support staff. This means the de facto workflow tier of the CMS workflow tiers are structured as follows:

Level 4 SYSAdmin capable of making modifications to the CMS and site datasources.

Level 3 Professor Jon Glass, CMR manager and final content filter
Level 2 CMR TA, a graduate student charged with assisting Professor Jon Glass

Level 2 Class professor, responsible for ensuring content quality, managing lists of authorized users at the class level

Level 1 Graduate student content creators

Level 1 Undergraduate student content creators

design RECOMMENDATIONS

RECOMMENDATION 1

Google site search

Add a Google site search bar to NH Interactive.

rationale

A Google site search built into the NH Interactive site would let visitors use keywords to search the CMR site. By looking at the keywords visitors directly type in the site, NH Interactive can be more closely evaluated to see if it is meeting users' search needs. A synonym bank of related and frequently used keywords is generated from the Google site search, which provides a bank of keywords that offer suggestions to help visitors find their end destination. A Google site search bar would also crawl and index pages deep within the site, which could have a direct effect on the page ranking of the CMR site in Google PageRank.

Google's internal site search is better than other site search companies. Some offer free site search tools, but do not offer the customization features Google does nor do they index the site's pages as frequently. FusionBot offers free, but less useful tools. SLI systems and other companies charge for internal site search as a feature included in larger analytic packages. Since NH Interactive uses Google Analytics for free, it would be more expensive use SLI only for internal site search features. Site searches other than Google are primarily geared for e-commerce services, not functions a news organization such as NH Interactive would need. SLI, FusionBot and Site Level Internal offer such e-commerce services.

method

A Google site search bar may be added through Google Analytics under the content sidebar in the site search option. Under site search overview, click "learn more about Google site search" and the "I want Google Site Search!" button. The administrator is then prompted to give the search engine a name such as "NH

Interactive Search Engine," a description like "Interactive media by Newhouse students," the language which should be English, the URL: <http://cmr.syr.edu/nhinteractive/> should be added.

NH Interactive must agree to terms of service by Google. These include letting Google JavaScript run through the site for the search engine to work, appropriate conduct such as not modifying the search engine for use on other websites, Google's right to metadata content and accepting that NH Interactive administrators are responsible for the upkeep of the site.

The site then needs an administrator's contact and purchase information. After the site search feature is purchased, it can be customized with the NH Interactive name, logo or graphic as desired through a template Google sets up (example below).

ORGANIC-CITY
think, great, act local

 Organic City Search Web Search

Image URL:
(optional) JPG, PNG or GIF; max 100px height

Link logo to URL:
(optional) e.g. http://www.google.com/coop

cost-benefit analysis

The cost of a Google site search bar is \$100 a year for a site of NH Interactive's size. The search bar is set up by the CMR's administration and Google says it should take one administrator about 10 minutes to set up. It requires no maintenance or work after it is set up. It is ad-free and can be customized (with or without Google logo) to the site. The site search bar does have restrictions based on the size of a site. A site with 5,000 pages is restricted to 250,000 queries per year. Google Analytics shows that NH Interactive had 1,407 total visits from eight different search engines from November 19, 2007, to November 19, 2008. Indicating a website the size of NH Interactive will not exceed the allotted number of queries Google site search provides.

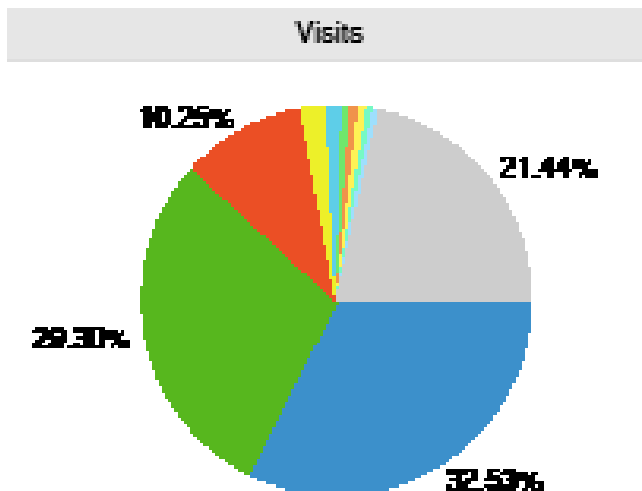
RECOMMENDATION 2 authors page

Create an authors page featuring author names and links to their content uploaded to the website.

rationale

Google Analytics data shows that a large number of users enter NH Interactive by searching for the names of authors in search engines. Although 64.07% of users entered the site directly from August 1, 2008 to December 1, 2008, there is no way to distinguish contributing users with obvious awareness of the direct URL from those unaffiliated with the site. The second highest traffic source, at 13.74%, is a Google organic search where author names are the most common keywords.

| Network Location | Visits | Visits |
|--|--------|--------|
|  syracuse university | 2,053 | 32.53% |
|  road runner holdco llc | 1,849 | 29.30% |
|  verizon internet services inc. | 647 | 10.25% |
|  comcast cable communications inc. | 135 | 2.14% |
|  unknown | 80 | 1.27% |
|  america online inc. | 45 | 0.71% |
|  at&t global network services | 43 | 0.68% |
|  optimum online (cablevision systems) | 42 | 0.67% |
|  america online inc | 33 | 0.52% |
|  bellsouth.net inc. | 31 | 0.49% |

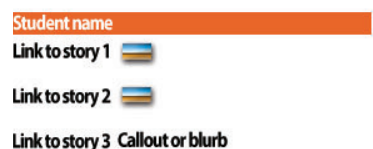
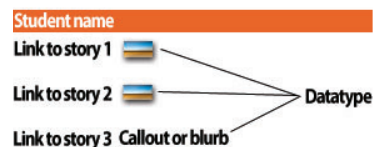


Therefore, it is logical to make it easier for users to find individual authors, which would likely lead to higher site traffic. The authors page would have a high number of links to content pages within the site and have a high number of incoming links as the individual content pages would link back to the authors' page through an author's name. It would therefore rank higher in outside search engine results.

When looking for authors within the site, a user would type the author's name into the proposed Google site search bar. The administrator should ensure that as users type in the search bar, potentially matching authors pop up under the bar, a feature now used in Google.com searches.

method

NH Interactive's administrator should first create a page featuring a list of authors with links to their content that would be automatically updated when a new author or story is added to the database. The authors page would have anchor tags by each name allowing a user to find a specific author through the site search mechanism. An example of what this would look like is shown directly below. The author's stories would be displayed in chronological order, with the most recent story on top. Each story would show datatype below its headline.



RECOMMENDATION 2 **authors page (cont.)**

method (cont.)

The administrator will also need to expand the number of columns in the table that stores story content from one to five to distinguish between multiple story authors. As it stands, the database only has one column for authors, which is problematic because all names assigned to a story are effectively recorded as a single author even if a story has more than one author.

Increasing the number of columns to five would allow each author to stand alone as one name thereby allowing the authors list to accurately indicate each story on which an individual author worked.

Another database table would also need to be added to include the graduation year of the individual author. Because the authors page would increase drastically in size as a new class comes in every year, there should be a design mechanism that filters current authors from ones who have graduated.

A site administrator should also go through content already stored in the site and reconcile past authors with their stories.

cost-benefit analysis

The entire operation could be conducted in 80 hours, although this is a rough estimate. At a pay rate of \$50 to \$75, per hour, this would amount to \$4,000 to \$6,000.

One variable would be the amount of time it would take to update the content that is already on the website. At the moment, the number of tables or content units is unknown. It may vary because we don't know how many tables are there. If one person is employed, it would take approximately 80 hours.

RECOMMENDATION 3

navigation bar

Add a navigation bar for the NH Interactive website.

rationale

A navigation bar would enhance the internal search paths of the site by helping visitors make fewer stops to get to their desired destination. NH Interactive does not have a standard navigation bar. Above the site's masthead there are links to the Syracuse University, Newhouse and NH Interactive homepages. The NH Interactive home option is the only semblance of a navigation bar. The navigation bar should be built below the site's masthead, where navigation bars are usually placed. The navigation bar should contain links to the home, recent stories page, proposed authors page, current courses page, to Newhouse's and Syracuse University's homepage and the proposed internal site search bar.

method

To have a navigation bar with links to the proposed authors page and internal search bar, those pages with their appropriate databases would have to already exist. The table for the structure of navigation feature is already built into the NH Interactive structure. To build just the navigation bar, the designer would have to adjust the table to the appropriate dimensions, color and rollover links to the pages outlined above. Once the navigation bar was built, it would have to be copied into every page on the site. The navigation bar would have to be tested as it is built into the site to make sure all links were working on every page. (See mock-up below).



RECOMMENDATION 3 navigation bar (cont.)

cost-benefit analysis

A navigation bar would take about four hours to design, build and get only the navigation bar up and running. It will take more time to build and implement the additional recommended pages such as the authors page. If the navigation bar had a relaxed deadline, one employee working on it and no additional page structures or features to work on, it would cost about \$200 - \$300 if a designer was paid \$50 - \$75 an hour. If it is determined that the navigation bar is needed on a quick deadline, it would take a couple of employees to do the work, which would cost more.

RECOMMENDATION 4 social bookmarking tool

Add a social bookmarking button from Addthis.com.

rationale

Social bookmarking is a method of posting a link back to your website onto websites designed to share content divided by descriptive content. Social bookmarking sites include: Digg.com, reddit.com, furl, stumbleupon, mr.wong and many others. Social networking sites such as MySpace, Facebook and Twitter also allow users to share news stories and other links with their network. A social bookmarking button would allow visitors to the site to post their favorite content on these websites.

There are several services that offer social bookmarking buttons. The top five are Addthis.com, SEO Centro, Online Marketing Blog at TopRank Online Marketing, Social Marker and Socialbookmarkit.com. Each of these sites is free to use, although some of them require a username and password. The sites also range in the amount of work required for installation.

Addthis.com and SocialBookmarkIt.com offer analytics services although Google Analytics could track how many users are actually clicking on the social bookmarking links and how many visitors are coming from bookmarking and networking sites.

Addthis.com and Social Marker allow code to be written into all pages as part of basic design. The other sites offer page specific bookmark buttons, but given the amount of the content uploaded and the subsequent number of pages, it would be very time consuming to put in the code for each individual page. The primary difference between Addthis.com and Social Marker is that Addthis.com offers buttons for users to share the link on social bookmarking sites and social networking sites like Facebook.com and MySpace.com. This is the only social networking button out of the five that offers this option. Facebook.com and MySpace.com are used by a very large majority of Syracuse University students as well as friends and family members from all over the country.

Google Analytics data indicate major site entry points were the names of authors indicating that users are looking for or are already aware of specific authors. This could be attributed to friends and relative searching for stories by specific authors. If authors could more easily post their stories to Facebook or MySpace, the link would be seen in the authors news feeds. Also, outside users can post stories to their social networking sites. Facebook and MySpace would therefore be important, probably more so than the social bookmarking sites that have less of a social network aspect.

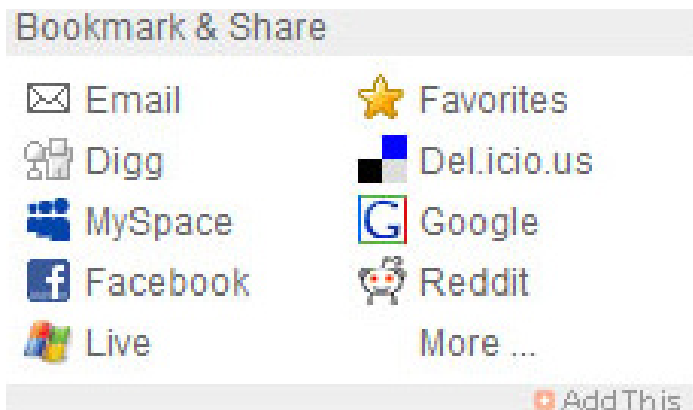
Addthis.com is free, has Facebook and MySpace sharing abilities, and requires the least effort as far as implementing it into the site. It can also be customized to choose which social networking and bookmarking sites will appear on the button. Facebook, MySpace, Twitter, Digg, Reddit, StumbleUpon, Technorati, Newsvine, Googlebookmarks and e-mail should be on the first part of the button. There is also an option for more social

RECOMMENDATION 4

social bookmarking tool (cont.)

rationale

bookmarking sites to use that would bring a pop-up window where the user has the option to choose from a number of additional social bookmarking sites. The following image is what pops up when a user scrolls over the small bookmark button.



When a user clicks on “More...,” they are given:



method

A site administrator to the site would have to create an account at Addthis.com. The site then generates the code as either a simple

button or as a widget with a drop-down menu.

The standard button code looks like this:

```
<!-- AddThis Button BEGIN -->
```

```
<a href="http://www.addthis.com/bookmark.php" onclick="addthis_url = location.href; addthis_title = document.title; return addthis_click(this);" target="_blank"></a> <script type="text/javascript">var addthis_pub = 'kaliltee';</script><script type="text/javascript" src="http://s7.addthis.com/js/widget.php?v=10"></script>
```

```
<!-- AddThis Button END -->
```

The widget button looks like this:

```
<!-- AddThis Button BEGIN -->
```

```
<script type="text/javascript">var addthis_pub = "kaliltee";</script>
```

```
<a href="http://www.addthis.com/bookmark.php" onmouseover="return addthis_open(this, ', '[URL]', '[TITLE]')" onmouseout="addthis_close()" onclick="return addthis_sendto(')"></a><script type="text/javascript" src="http://s7.addthis.com/js/152/addthis_widget.js"></script>
```

```
<!-- AddThis Button END -->
```

This code would then be placed in all content pages within the site with the same code being used for all pages and the button or widget will appear on all the pages within the site once the code is copied and pasted.

Students and authors could also be told to social bookmark their pages or stories themselves. Once the button is on the site, it takes less than a minute for a user to “share” their work on any of the bookmarking or networking websites.

RECOMMENDATION 4 **social bookmarking tool (cont.)**

cost-benefit analysis

The cost here is minimal. The tool itself is free, and it would take an administrator very little time to generate the code and then copy it into the template for the website.

Implementing this tool would most likely result in a drastic increase in the number of incoming links to the site. Authors can share their favorite stories very simply on a number of sites that would not only link to friends and family, but an entire social network. If the stories or pages are properly tagged on sites like Digg and Reddit, users not affiliated with any of the authors or Newhouse, or Syracuse University would be able to see individual stories on a topic they searched on those sites. The added link value to the site would also help with Google's PageRank.

After a period of time after implementing, it would be beneficial to analyze the Google Analytics data to see how many users are using the button and how many unique visitors are accessing the site through the networking or bookmarking sites.

RECOMMENDATION 5 **user registry**

Implement a user registry (e-mail and password) to track comments, unique users, and send e-mails with inbound links.

rationale

One of the problems with the Google Analytics data is that the identity of visitors is indeterminable. Since August 1, 2008, 32% of visitors were from Syracuse University networks, but there are problems with measurement. The same visitor can easily access the site from multiple computers, and, therefore, it looks like there are multiple visitors when there may only be one.

There is also no way to distinguish contributing users from unique visitors. Registering users would allow for better quality data on how specific visitors are using the site and how many unique visitors are actually using the site. From August 1, 2008, to November 19, 2008, 52.15% of visitors only visited the site once.

Due to the fact that there is no way to distinguish users from Syracuse University, which make up 32% of visitors as unique or returning because of the nature of the Syracuse University Network, it is nearly impossible to determine visitor loyalty.

To get visitors to register, registration would be a requirement to comment on a story and get e-mail updates about the site. Registration would also provide incentive for users to feel more involved with the site and spark a desire to return, which would in turn increase our returning traffic overall. The registration system is also an incentive for people to leave more comments, since they will be identified by comment. Having loyal users who enjoy their interaction and feel a part of the site would also promote the site via word of mouth.

method

Create a database table for users that would include: first name, last name, e-mail address, password and then an authorized user table. A Comment ID field will need to be added to the comment table to ensure user comments can be traced. In the authorized-user table there would be a series of comment user IDs that would link to table of story comments, which are then linked to stories.

A system administrator would create an e-mail manager compiling a list of registered users who have commented on stories and generate an e-mail to these users with links to recently uploaded stories. There should also be an "opt-in" and "opt-out" function on the registration form so users do not receive e-mails if they do not want them. It would then be the CMR teaching assistant's job to ensure these e-mails are sent.

RECOMMENDATION 5

user registry (cont.)

cost-benefit analysis

The implementation of the user database requires the administrator to set up and link the new database and create an e-mail manager. It would require the TA to spend billable hours to write and send the e-mail generated by the e-mail manager.

Creation of new tables: 2 hours

Implementation of registration system: 6 hours

Modifying comments system: approximately 4 hours depending on current code set up

Total cost at \$60/hour if using contracted labor: \$720

The benefits would be to determine visitor loyalty, increase traffic to the site through the e-mails and increase traffic of returning visitors and user involvement. After this strategy has been implemented, data should be analyzed to determine the effectiveness of e-mailing links.

kpi RECOMMENDATIONS

RECOMMENDATION 1

non-obtrusive poll

Create a non-obtrusive poll for NH Interactive.

rationale

We are in desperate need of separating users involved with the site from those who are visiting for actual information and to read, hear or view the content. The majority of our visitors are from Syracuse, and a massive percentage of those are from Syracuse University networks. To determine who is who, a small two or three question poll that pops up when an SU network is detected from a visitor would allow us to ask if the current visitor is involved with the production of the site.

Analytics are key to understanding a website's success and growth. Right now our data is closer to worthless than being much of a benefit.

method

Use a third party IP/location identifier or compile SU's network IP addresses in a database and compare current visitors' IP address. Once we knew they were in Syracuse or on an SU network we could pop up the tiny poll. This would not be implemented in a new window, but on a corner of the page where they could decide not to participate. Once a user participated, though, we would drop a cookie in their browser that would allow us to avoid giving them the poll again. We could henceforth track their visits and pop the data into a database or XML grid. One question with two answer options would give the necessary data to separate the site's analytics: Are you involved with the creation of the content of this site? Yes/No. Once the user clicked on either yes or no the poll would disappear via an AJAX script without the need to even hit a submit button or go to a new page.

cost-benefit analysis

Cost—Minimal site modification and possible price for third party IP address analysis or research on determining geography from IP addresses. The cost is greatly outweighed by the fact we would finally have good and relevant analytics about our target audience: Current students/faculty and local area traffic.

RECOMMENDATION 2

RSS feed and Twitter account

Add an RSS feed and Twitter account to NH Interactive.

rationale

Returning visitors are key to keeping traffic moving on a site and spreading word-of-mouth referrals which in turn provide new visitors. RSS Feeds and Twitter accounts give visitors the ability to keep up with sites' evolving content and provide incentive for them to return to the site even at times when they were not planning to come.

method

Any decent developer could implement and train the simple technology. All that is really needed is to teach a user of the site how to log in to a Twitter account and post a status message. The RSS feed is simply creating a database driven page that displays new and current article postings in the RSS accepted format.

cost-benefit analysis

A couple hours from a contracted developer or in-house programmer and another hour or so to train four or five people would be sufficient. At \$60/hour we are looking at around \$300 to \$420, a one-time cost. For such a small fee we would have a much more facilitating network for our users who are loyal or willing to give a shot at keeping up with the site's updated content.

RECOMMENDATION 3 **comment system update**

Add a comment system update to NH Interactive.

rationale

Comments are beyond a good internal KPI, but provide a KPI that public users can see and use to judge the site. These should have a strong focus in revamping the website and registration system. Since word of mouth and return visitors can be a large part of traffic, we need to cater to their idea of a successful website. Showing dedicated and loyal users to the public gives an impression that the site is worth getting involved in. It shows a community. Many of the largest websites today that solely based around a community and community-driven content. This site may not be focused on community-driven content, but not promoting it in the slightest will negatively separate our site from our closest competition (news sites, blogs, etc.). It might even be worthwhile to take the comments system a step further and start a community forum or just a simple message board to allow users to really get into deep discussions surrounding topics of interest.

Also, we would like to recommend offering specific questions at the end of articles, and then commenters can be asked to contemplate and respond. This would be another method of invoking user interaction.

method

We should require commenters to register to comment with an identifying username, and block users from leaving a comment with an identifiable username unless they have registered for the system. Create a more intricate commenting system that identifies the commenter, if logged in, and allows people to see a username and possibly an image avatar.

cost-benefit analysis

Simple technology with minimal cost, yet increased appeal to new visitors and incentive to register. But to move beyond the register or post anonymous function, we may have a bit more cost. A small forum or forum-like features for commenters could add another \$500-\$2,000 to development costs depending on how rich and complex an array of features were chosen. The benefit could be outstanding though. If we get users involved and build a community, then we would increase incoming links, return visitors and create a new feeling of connectivity around the site as a whole.

seo RECOMMENDATIONS

RECOMMENDATION 1

modify JavaScript

Modify JavaScript footer to differentiate the administrative side from the content side.

rationale

Presently, in its traffic data, the NH Interactive website does not differentiate between users at the administrative side from the content side. This skews the traffic results for the website. To be able to optimize and get higher ranks, we would need to know just the users that come to the website and not the administrative people.

cost-benefit analysis

There is no cost involved – this can be done by the person who is coding the page. The benefit gained will be significant, since we would be able to get data about people who are actually coming to read the content. This will help us in optimization as we will gather information such as the kind of keywords being used.

RECOMMENDATIONS 2 through 7 **hire a TA for optimization**

NOTE: For recommendations two through seven, hire a TA. The TA should preferably be from the advertising department (since optimization should be an integral part of learning for advertising students). The TA would handle duties for the classes' part of the CMR operations. The cost would include training the TA and providing tuition benefits along with a base hourly salary.

cost

Approximate cost break-down for a hiring a TA (One Semester):

Hourly pay: \$13

Credit Remittance: 9 credits @ \$1,069

Total no. of hours: 160 (10 hours per week for 16 weeks)

Total hourly cost: \$2080

Total cost: \$9,621 +\$2,080 = \$11,701

RECOMMENDATION 2 **add meta tags in HTML page**

Add meta tags in the HTML page, which includes:

- Title: Title tag defines the title of the document.
- Description tag: This tag influences the description of our page by the crawlers that support the tag.
- Keywords tag: This allows us to provide additional text for crawler-based search engines to index and the body copy.

rationale

The Google algorithm gives a lot of weight to title tags. It is essential to include title tags to generate higher ranking on Google. Also, when a user adds it to their "Favorites" or "Bookmarks" lists, the title tag will be displayed to describe the web page.

- Description tags are for visitors. To get visitors to click, description tags should present a great offer and be written with action words. They also affect the page rank.
- Google search engine takes keywords into account while crawling the web and ranking results, so if keywords are used effectively they will help us generate a higher ranking.

RECOMMENDATION 2

add meta tags in HTML page (cont.)

method

Following is an example of how to write meta tags:

```
<title>Site name - Page title - Keyword description</title>  
<meta name="description" content="A blurb to describe the content of the page  
appears here" />  
<meta name="Keywords" content="CNN, CNN news, CNN International, CNN  
International news, CNN Edition, Edition news, news, news online, breaking  
news, U.S. news, world news, global news, weather, business, CNN Money,  
sports, politics, law, technology, entertainment, education, travel, health, special  
reports, autos, developing story, news video, CNN Intl, podcasts, world blogs">
```

- Title, description and certain keywords can be suggested by the students who upload their own content, while others can be added by the TA.
- Meta tag videos: Videos can be optimized by using relevant keywords and including a keyword rich description of the video content.
- Google Trends and Google Analytics would help us find the correct keywords and their category. Examples of keyword categories could be: names, class sections, story name and year, among others.
- Aim for a keyword density of around 3% to 5% of the page content.

cost-benefit analysis

As mentioned above, the cost would be to hire and train the TA. The benefits would be immense. Google's page-ranking algorithm pays a lot of importance in meta tags and keywords. Presently, the website is not being ranked. Using the right keywords will not only get us a ranking, but will help increase it.

RECOMMENDATION 3

improve NHinteractive's linkage

Create related inbound, outbound links, and links within the website.

rationale

Link popularity is an effective factor for improving search engine rankings. A link to a website is considered as a confidence measure, since users believe the site has something of value to offer them. Thus, links are considered very important factors by search engines in determining a site's popularity.

method

Ways to create inbound and outbound links:

- All relevant sister sites at Syracuse University. For example: On the Newhouse School website, we can create a link in the "course description page" as "student work in this class," which can lead to our website.
- Local news sites.
- High schools etc.
- Student blogs. These should be included, since most of these students have personal blogs as well as blogs from other classes.
- Alumni sites/blogs
- Sites of professors / blogs
- Story-related websites (For example: An entertainment-related story could be linked to one of the local entertainment websites such as www.syracuse.com/entertainment, or a story about a company can be linked to that company's website).
- We can upload some of our videos to portals such as YouTube and provide links back to related content and videos on our site.
- The authors of the articles can create outbound links they think appropriate and the TA assigned for the SEO for the website can look over it.

RECOMMENDATION 3 improve NHinteractive's linkage (cont.)

cost-benefit analysis

The cost would be to hire and train the TA. The benefit is that we can increase our ranking considerably if we can place high-ranked inbound/outbound links to and from the website. The TA can keep looking at possible places for links and keep contacting other websites and updating them about our content so they can link to our website.

RECOMMENDATION 4 tag images and videos

Tagging can be done in two ways, both should be used. One way is to use ALT tags: ALT tags or ALT text is an alternative text description of the image/video. Another is to use text around the image/video: This generally takes the form of a title or caption.

rationale

Google Spiders can not read images/videos, so ALT tags are the alternative text which can be read by the spiders. ALT text displays before the images/videos are loaded. Google presumably gives considerable importance to the title and ALT attributes of the images and videos.

When coordinated with page keywords, they can lead to increased keyword density and therefore better probability for a higher ranking.

method

This can be incorporated by adding the ALT and Title attributes to the code. ALT is required for the images. An example below:

```

```

```
<table width="100" border="2" title="Henry Jacobs Camp summer 2003 schedule">
```

```
<a href="page1.html" title="HS Jacobs - a UAHC camp in Utica, MS">Henry S. Jacobs Camp</a>>
```

```
<form name="application" title="Henry Jacobs camper application" method=" " action=" ">
```

ALT text can be the name of the authors, the class and year. The title should be the name of the story. Apart from these tags, for images/videos, we can use the names of the people who have captured the image or produced the video (they might not be the same as the authors.)

cost-benefit analysis

The cost would be to hire a TA, who can be trained to use this and change it as and when new content is uploaded. The primary benefit is to make images and videos on our site readable by Google spiders, and they can therefore lead to a probability for a higher ranking. Also, it can boost our site's accessibility, since ALT tagging images and videos can improve the browsing experience of our visitors with disabilities, enhance keyword density and relevancy, and offer valuable information with descriptive link titles and descriptive text about other page elements.

RECOMMENDATION 5 use anchor text in content

Anchor text is the hyperlinked clickable word on a web page. It is usually used to indicate the subject matter of the page that it links to.

rationale

While the relevance of the page containing the anchor text is also enhanced to some degree, the keywords in anchor text enhance the relevance of the target page pertaining to the keywords used.

RECOMMENDATION 5 **use anchor text in content (cont.)**

rationale (cont.)

The inclusion of important keywords in the anchor text can make a big difference in the final ranking. Google has a special operator: "allinanchor:keyword," which picks up text only from within the anchor text of indexed pages. Since the Google algorithm is configured to index anchor text as separate queryable data, thereby, making it evident that Google considers it an important pointer to page relevance.

method

We can link to videos using important keywords in anchor text, which is given a lot of weight by the Google algorithm.

cost-benefit analysis

The cost would be to hire and train a TA. The TA can create anchor text as and when the content gets uploaded. The benefit of adopting this would be an increased ranking on the search engines, since Google ranks sites based on anchor text, or link text. Anchor text is also the text that visitors use to link to us, and this could give them relevant descriptive or contextual information about the content of the link's destination.

RECOMMENDATION 6 **frequent checks for link rot in site**

Constant check for dead links/link rot on the website. Dead links are links that point to a web page or a server that is permanently unavailable.

rationale

Over time, when there is a constant change of content on a

website, links tend to die off or disappear. Such links thereby lead to the deterioration of the overall website, causing much pain to users and in turn reducing the ranking of the site.

The Google ranking system would not be able to index these error-filled pages, and, it would lower the ranking of the website. Thus, the higher number of dead or broken links would create a less-favorable situation for a website to be ranked higher.

Currently, the NH Interactive website has 31 dead links. These links can be classified into those that link within the website itself or ones that link outside.

method

It is important to check regularly for such dead links and rectify them. There are many free websites and applications that help in locating dead links for a specific website. The popular ones are www.dead-links.com, www.validator.w3.org/checklink (W3C link checker), LinkChecker Application (only for Firefox).

cost-benefit analysis

Cost for implementing this is minimal; the link checking websites/applications are provided for free and do not require any additional cost to use. The only cost would be labor; that is having the TA perform constant checks for dead links. The benefit of having someone regularly checking the website for dead links is it would help in establishing a constantly updated website. This in turn would help in increasing the page rankings on search engines.

RECOMMENDATION 7 **Google Webmaster Tools**

Sign up for Google Webmaster Tools.

rationale

This tool will show us how Google views NH Interactive, help us diagnose problems, and improve site visibility in the search results. It provides information such as:

- Crawling information, such as when did the Googlebot visit our website last and which pages couldn't be crawled
- How the website is being indexed and which pages are included in the indexing
- The different internal and external links through which the page was visited, and also the top queries; this will help us know where exactly the traffic is coming from and how they are finding the site
- What is the most visited content of the website and words that other websites use to link to it

method

Register NH Interactive's URL with Google Webmaster Tools

cost-benefit analysis

The cost to implement this tool is minimal, since it is a free service provided by Google. The TA will have to go through it and coordinate with the technical team to implement changes.

Compared to the cost, which is zero, the benefit of this service is immense. It is a step forward from the regular Google Analytics tool. It provides in-depth coverage of who the site's users are, what their behavior's while using the website and the content which excites them the most among others. Such fruitful information, especially about the visitors is very important to any website, wherein the administrator and the team can learn so significant changes can be implemented.

RECOMMENDATION 8 **sitemap**

Include a site map for the entire website.

rationale

For most websites that have a number of pages and a lot of content, it is advisable to include site maps. A site map is useful in locating the content on the site. Another important implication of having a site map is improving the search engine optimization of the website by ensuring all the pages can be found easily. The site map page can indicate a web crawler how pages can be found. This helps to increase the rank of the website in a search engine result.

method

A site map is another page that needs to be included in the content management system, which would be an internal part of the website. This has to be developed by a designer and a developer. It is important that the content on the site map is linked correctly to the content.

We also can include a video site map. The NH Interactive website has many videos and, thus, it is important to make sure these videos can be found easily. Including a video site map will help users go directly to the videos they would like to watch; and it will help increase our Google PageRank.

cost-benefit analysis

Including a site map would be done by developer and a designer, who would be an internal or external hire. An appropriately designed site map would make a website user-friendly and improve navigation abilities for the users. User-friendliness is closely tied in with generating user loyalty. We would then establish a solid base of users who would visit the website regularly, thereby improving the website's rankings.

workflow RECOMMENDATIONS

RECOMMENDATION 1

CMS adjusted thumbnail photographs

Program the CMS to automatically adjust thumbnail images when pictures are added.

rationale

Many of the stories posted have the incorrect thumbnail size. It makes the site look sloppy and also makes it hard to see thumbnails posted below it. The thumbnails are supposed to be a certain size, but it seems to be difficult for the students who are uploading their stories to get it correct. If the CMS was programmed to automatically adjust photos that are uploaded incorrectly, it will save the students and professors time from having to go back and resize the thumbnail. It will also make the site look more professional, because there will be fewer errors. The main benefit would be in the appearance of the site.

method

The programmer could use the free code posted below. The program is also available for a one-time fee at coldfusion.com.

```
<cfscript>
/**
 * Will take a number returned from a File.FileSize, calculate the number in terms
 of Bytes/Kilobytes/Megabytes and return the result.
 * v2 by Haikal Saadh
 *
 * @param number Size in bytes of the file. (Required)
 * @return Returns a string.
 * @author Kyle Morgan (admin@kylemorgan.com)
 * @version 2, August 7, 2006
 */
function fncFileSize(size) {
if ((size gte 1024) and (size lt 1048576)) {
return round(size / 1024) & "Kb";
```

```
} else if (size gte 1048576) {
return decimalFormat(size/1048576) & "Mb";
} else {
return "#size# b";
}
}
}</cfscript>
```

```
<cfset methods = "highestQuality,lanczos,highquality,mitchell,mediumPerforma
nce,quadratic,mediumquality,hamming,hanning,hermite,highPerformance,black
man,bessel,highestPerformance,nearest,bicubic,bilinear">
```

```
<cfset results = queryNew("method,size,time")>
```

```
<cfset sourceImage = expandPath("./DSC00014.jpg")>
```

```
<cfset finfo = getFileInfo(sourceImage)>
```

```
<cfset img = imageRead(sourceImage)>
```

```
<cfset iinfo = imageInfo(img)>
```

```
<cfdump var="#iinfo#" label="File Size in Bytes: #finfo.size#">
```

```
<cfimage action="writeToBrowser" source="#sourceImage#">
```

```
<hr/>
```

```
<cfloop index="m" list="#methods#">
```

```
<cfoutput>
```

```
<h2>Resize Method: #m#</h2>
```

```
<cfset newImage = duplicate(img)>
```

```
<cfset timer = getTickCount()>
```

```
<cfset imageScaleToFit(newImage, 700, 700, m)>
```

```
<cfset total = getTickCount() - timer>
```

```
<cfset filename = m & "_" & getFileFromPath(sourceImage)>
```

```
<cfset imageWrite(newImage,expandPath(filename),1)>
```

```
<cfset finfo = getFileInfo(expandPath(filename))>
```

```
<cfoutput><p>#fncFileSize(finfo.size)# bytes at #total/1000# seconds</p></
```

```
cfoutput>
```

```

```

RECOMMENDATION 1

CMS adjusted thumbnail pictures (cont.)

method (cont.)

```
</cfoutput>
<cfset queryAddRow(results)>
<cfset querySetCell(results, "method", m)>
<cfset querySetCell(results, "size", fncFileSize(finfo.size))>
<cfset querySetCell(results, "time", total/1000)>
<cfflush>
</cfloop>

<cftable query="results" border colHeaders htmlTable>
<cfcol header="Method" text="#method#">
<cfcol header="Size" text="#size#">
<cfcol header="Time (Seconds)" text="#time#">
</cftable>
```

RECOMMENDATION 2

NHinteractive training session

Hold a training session for professors and teaching assistants who will be using NH Interactive.

rationale

We need multiple checks on the uploading process and a knowledgeable administrative/control layer to prevent problems. One goal of the training session would be to explain the purpose of the website, including who the target audiences are. It is important for the students to know their target audiences as well.

Another goal is to explain the importance of appearance and correct content. Professors will be encouraged to come up with a way to include the presentation of the uploaded stories in the grade. This includes the thumbnail, Soundslide, and correct story format. If students have more of an incentive to post their stories correctly they may make fewer errors.

method

A training session for professors and teaching assistants who upload to the website should be held at the beginning of each semester, or once in the beginning of the fall semester. Included in the training session would be instructions on how to properly upload to the website. Also if new features are added, instructions on how to use the new features and how to have students use them effectively to reach the target audiences.

cost-benefit analysis

The cost is having the training session. It could be the person in charge of the CMS, or somebody who frequently works on NH Interactive. Also getting instructors and TAs to attend be difficult, so the training session would have to be mandatory. The benefit is that professors and TAs will have a better idea of how to use NH Interactive, and they will be better prepared to help the students use the website to its fullest.

RECOMMENDATION 3

clean Google analytics statistics

Clean up the Google Analytics statistics, so the administrative process does not show up in the traffic statistics, and only authentic audience statistics are considered.

rationale

Traffic on Google Analytics is skewed; therefore we do not get a good baseline assessment of the value of the site, specifically to our target audiences.

method (cont.)

1. /nhinteractive/admin/story_manager.cfm?submit=yes&nhclass=12
2. /nhinteractive/admin/story_manager2.cfm?submit=no&action=updatestory&nhclass=12
3. /nhinteractive/courses.cfm?classid=12&classdept=RTN&classnumber=564
4. /nhinteractive/

RECOMMENDATION 3 **clean Google analytic statistics (cont.)**

5. /nhinteractive/admin/story_manager.cfm?nhclass=12&type=4
6. /
7. /nhinteractive/courses.cfm?classid=9&classdept=RTN&classnumber=565
8. /nhinteractive/admin/
9. /nhinteractive/admin/index.cfm
10. /nhinteractive/courses.cfm?classid=11&classdept=RTN&classnumber=664
11. /nhinteractive/admin/video_manager.cfm?submit=yes&nhclass=12
12. /nhinteractive/admin/admin_home.cfm?nhclass=12
13. /nhinteractive/admin/manage_media.cfm?nhclass=12&type=4
14. /nhinteractive/admin/story_manager.cfm?submit=yes&nhclass=9
15. /nhinteractive/admin/video_manager.cfm?nhclass=12
16. /nhinteractive/admin/story_manager.cfm?submit=no&error=updatesuccess&nhclass=12&CFID=5313&CFTOKEN=12659516
17. /nhinteractive/admin/manage_modules.cfm?nhclass=12&type=4
18. /index.cfm
19. /nhinteractive/admin/story_manager.cfm?submit=yes&nhclass=11
20. /nhinteractive/admin/videogallery.cfm?submit=yes&nhclass=12

Of the top 20 pages, 14 of the URLs are administrative pages.

cost-benefit analysis

There are a number of methods to do that. One method is a preview mode. The preview mode would allow administrators to access the information on the site, without affecting the site traffic. This has a high cost, to be determined because it requires new programming. Another method that has a low cost is using two different Google Analytics footers. One specific Google Analytic tracking code would be put on administrative pages, while a different tracking code would be put on visitor pages.

RECOMMENDATION 4 **hyper-linking and tagging**

Include hyperlinking and tags as a part of the editing process before content is approved to be published to the web.

rationale

NH Interactive's content is not tagged. There are no hyperlinking indicators as to what the content is, who it involves and its relationship to other entities in the community. Though search engines crawl recently uploaded web content, tagging and hyperlinking is a key manner through which online information is found. NH Interactive passively publishes web content and is not being proactive in propelling students work, especially in comparison to academic competitors. A linking structure would lead to increased web visibility of students prior to entering the job market or interning. With hyperlinking and tagging, students work would be optimally maximized on the web.

method

When uploading student work to NH Interactive, students would hyperlink and tag notable nouns and events in their story's word, photo and video content. This allows student work to be more easily searched through keywords.

Ex. If a story is about China Olympics, hyperlinking a few words like "Olympics" to the China Olympics website and then tagging the video "China" or "Olympics 2008"

An explicit approval system before content is published on NH Interactive would need to be in place to reinforce content tagging as a necessary practice.

A hyperlinking button allowing the CMS to display and recognize hyperlinks in content needs to be implemented.

RECOMMENDATION 5 **approval**

A hierarchal administrative structure needs to ensure that content is appropriately hyperlinked by students producing the online content before it is published.

rationale

The online visibility of students work would suffer if professors or teaching assistants linked students stories. The students who produce the projects are better suited to attach appropriate links and strong keywords to their work. Creating links from student work to subjects' websites would also increase NH Interactive's linkage. Administrators need to ensure links are working and routed to the correct web address.

method

Hyperlinking opportunities in a web document are shown.

NHI :: NEW508: Newspaper Editing: A New Model for News

[Course Home](#)

Election Coverage Immune to News Fatigue

By [C. J. LIN](#), [HEATHER MAYER](#), [ASHLEY PETTIGREW](#), [CLAIRE ZILLMAN](#)
Published Wed, Nov. 19, 2008

New technology such as blogs and [RSS news feeds](#) create around-the-clock news coverage, saturating media outlets with constant headlines and updates. As a result, young news consumers feel they are bombarded with news, according to an Associated Press report, "[A New Model for News](#)," which was published in 2008.

We wanted to find out if consumers also felt fatigued by election news.

We surveyed 124 students and interviewed 12 subjects to learn how they felt when it came to election coverage.

Students at Syracuse University who fall within the same 18- to 34- age bracket as those profiled in the AP report said election news wasn't overwhelming, and one expert agreed.

These consumers, who said they are inundated with the recycled updates and headlines of general news, also said they couldn't get enough election news. But they said they wanted unbiased, factual coverage, not trivia about the [candidates](#).

"I think there should be a lot of coverage," said freshman Andrew Dressler. "Americans need to be informed about their leaders."

SU students said there was no shortage of election coverage, but they wished the [media](#) would focus less on trivia about the candidates and more on their platforms.

cost-benefit analysis

The cost of tagging is minimal, while the benefits are tremendous, as previously explained. Hyperlinking requires only a few extra seconds to do while uploading content to the site. It is commonly done in social networking sites such as Facebook, MySpace, YouTube, and Flickr.

RECOMMENDATION 6 author database in CMS

Structure an Author Database within CMS.

rationale

Web searches for author names, such as "Kris Wasik," are popular search queries for content on NH Interactive.

A database for content authors can facilitate such user queries on the site itself as opposed to using outside search engines. An author database has increasing potential as a traffic driver if it leads to indexed articles, author profile information, and a presentable array of work from a single author.

The current administrative hierarchy is set up to make an administrator/super administrator create a profile by which classes can upload content. A database would enable students to upload content and have it approved by an administrator. A database can maintain contact information making an online dialogue possible between searchers and contributors.

NHinteractive Content Management System

SITE MANAGEMENT: [Manage Classes](#) > [Department Manager](#) > [Manage Homepages](#)

Manage Users

This section of the Content Management System is used to manage and update users of the website. Please select a function, Modify, Add or Delete to proceed.

Search & Modify Current Users

Click Search & Modify above in order to look at records for users already registered on the website.

Add a New User

Click Add above in order to add a new user or administrator to the website.

Delete A Current User

Click Delete above in order to completely delete a user's record from the website database.

As content on NH Interactive grows, the database would become

WORKFLOW

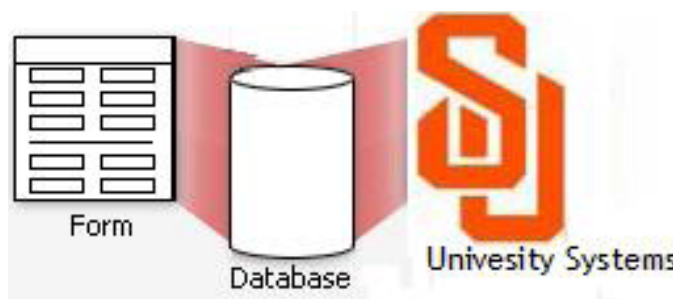
RECOMMENDATION 6
author database in CMS (cont.)

method

There needs to be a middle supervisor or instructor to approve submitted NH Interactive content.

Suggested methods for achieving an author database include:

- A web form as a secondary data source for an author database – providing it with personal-user-provided content (outside of student ID and e-mail) that the university system does not.
- A prompt for users to fill information necessary for a profile prior to uploading.
- Use the database to examine content that is high in traffic versus static content.
- Identify and link content in various classes or years to one unique student ID.
- Allow database to be accessible to other Syracuse University systems.



cost-benefit analysis

Building a database system can be done in-house through programs such as Microsoft Access or FileMaker Pro. Database software such as Salesforce are offered free to nonprofits with up to 10 users but open-source tools like Metrix and CiviCRM can run up to \$3,000 and can be extremely extendable and flexible to organization needs.

NHinteractive Content Management System

SITE MANAGEMENT: > Manage Classes > Department Manager > Manage Homepage > Manage Feedback > Manage Users

Search & Modify Users

These are the results of your search for website users. If you did not find what you are looking for [CLICK HERE](#).

| User Email | First Name | Last Name | User Group | User Active | Details | Update | Delete |
|------------------|------------|-----------|------------|-------------|-------------------------|------------------------|------------------------|
| bpreisdo@syr.edu | Brendan | Reisdorf | Student | Yes | Details | Update | Delete |
| dfkauppi@syr.edu | dan | kauppi | Student | Yes | Details | Update | Delete |
| djparkin@syr.edu | Danny | Parkins | Student | Yes | Details | Update | Delete |
| djwolfga@syr.edu | Daniel | Wolfgang | Student | Yes | Details | Update | Delete |
| dmstein@syr.edu | Danielle | Stein | Student | Yes | Details | Update | Delete |
| jjupmali@syr.edu | Jordan | Upmali | Student | Yes | Details | Update | Delete |

